

THE BULLETIN

Monthly News from ENERGY STAR BuildingsSM and Green Lights[®]

July 6, 1999



Web Site Information

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Reducing Your Energy Consumption with ENERGY STAR[®]-Labeled Products

The U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE) have established the ENERGY STAR[®] Labeling programs in order to allow consumers to identify office equipment, exit signs, transformers, residential light fixtures, household appliances, home electronics, heating and cooling equipment, windows, and other products that are energy efficient. Products with the ENERGY STAR label consume less energy than other products, save money on utility bills, and help protect the environment. Several of these products can contribute to efforts to reduce the energy used in your office. When examining areas in which to save energy in an office, exit signs and office equipment should be considered to augment lighting, temperature controls, and HVAC energy-saving opportunities. These plug-load reductions not only offer energy savings by themselves but also reduce the heat emitted by these products to the space and therefore save additional energy by reducing cooling loads.

Energy use by office equipment currently accounts for more than 7 percent of all commercial sector electricity use, and it is continuing to grow. Each year, approximately \$1.8 billion are spent on the energy costs associated with operating office equipment. Much of this energy is wasted. ENERGY STAR-labeled office equipment is a good place to start reducing energy use. Typically, ENERGY STAR-labeled office equipment can save an office up to 50 percent of its plug load operating costs.

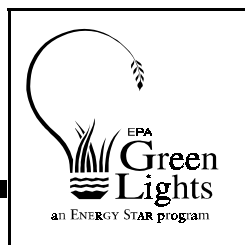
Currently DOE and EPA label the following products: computers, copiers, fax machines, monitors, printers, multi-function

devices and scanners. Energy is saved when the ENERGY STAR-labeled office equipment products power down or "go to sleep," and/or shut off when not in use.

Copiers are the most energy-intensive types of office equipment, because they idle for long periods of time, wasting energy. ENERGY STAR-labeled copiers are equipped with features that allow them to reduce a copier's annual electricity costs by almost 60 percent. High-speed copiers can also be set to automatically make double-sided copies, resulting in significant reductions in monthly paper costs. Using less paper saves energy because it takes 10 times more energy to manufacture a piece of paper than it does to copy an image onto it.

Fax machines are generally turned on 24 hours a day. However, they are only actually in use for about 5 percent of the total time that they are turned on. ENERGY STAR-labeled fax machines are designed to save energy by being programmed to reach a low-power state after a specified period of inactivity. ENERGY STAR-labeled fax machines are equipped with the power-management feature and can reduce energy costs by almost 50 percent.

Monitors consume a significant portion of energy. However, monitors equipped with a power-management feature can save 60 to 80 percent of the energy that would otherwise be wasted. New trends toward larger color, and higher resolution desktop monitors have increased the amount of energy required to operate monitors. This has made it even more important to choose a monitor that automatically powers down when inactive. ENERGY STAR-labeled monitors automatically power down to 8 watts when off. To wake up a monitor,



New Participants

EPA would like to congratulate the following new ENERGY STAR Buildings Participants.

Association of Energy Engineers
 Bethlehem Area School District
 Booneville School District
 Boulder County, Colorado
 Burkburnett Independent School District
 Carson Nugget, Inc.
 Catholic Charities Facilities Corporation
 Cedars-Sinai Medical Center
 City of Bridgeport
 City of New Haven
 City School District of Kingston, NY
 Clarksville-Montgomery County School System
 Clear Creek School District RE-1
 Club Corporation, International
 COBO Conference/Exhibition Center
 Comal Independent School District
 Downingtown Area School District
 East Cleveland City School District
 Energy Efficient Lighting Association
 Extended Stay America
 Fleming Companies, Inc.
 Lafayette County Schools
 Lakeland Regional Medical Center
 Lower Moreland Township School District
 Loyola Marymount University
 Maricopa County, Arizona
 Martin Engineering
 Mary Washington Hospital
 Matanuska-Susitna Borough School District
 Multicare Health System
 New York University Medical Center
 Norfolk State University

Medical College of Ohio Recognizes the Energy Savings Potential of ENERGY STAR Office Equipment

Faced with shrinking budgets that make it difficult to fund energy improvements, the Medical College of Ohio (MCO) is identifying ways to reduce its \$3.5 million annual energy expenditures at its 2 million square foot campus in Toledo. According to Energy Manager Harvey Vershum, MCO has identified measures to reduce campus-wide computer and office equipment energy usage, particularly in the areas of procurement and equipment operation.

The college's energy reduction initiative ensures that all office equipment that is purchased is ENERGY STAR-compliant. Power management features help ENERGY STAR-labeled equipment save energy by allowing it to go into a "sleep" or reduced power mode. By touching a button or moving a mouse, the equipment "wakes up" and returns to full power. Vershum works closely with Roger Kokensparger of the MCO electrical staff, and the MCO Purchasing Department to ensure that all of the college's new office equipment purchases require ENERGY STAR compliance.

Another important step in reducing energy use through office equipment is to ensure that the power management features on all ENERGY STAR-compliant products are enabled. Using a Dranetz meter on his computer, Vershum measured the effect of power management on energy use. He found that an enabled ENERGY STAR-compliant computer measured 2.9 amps of usage under full power, and only 0.4 amps in sleep mode. Thus, Vershum estimated that if all 2500 computers on campus were properly enabled, MCO could save about \$50,000 to \$60,000 per year. The MCO Energy Management Department is now working with its Information Technology group to ensure that the power management features on all newly-installed computers are enabled. Vershum also plans to stress the importance of energy conservation to MCO faculty, staff and students, so that they will develop a greater awareness of how their behavior affects energy use and energy costs.

all you have to do is simply touch the keyboard or mouse. ENERGY STAR-labeled monitors emit less heat into the workplace than conventional monitors. This means you will also save on your utility bills from heating and cooling load reductions, as well.

Printers are typically left on 24 hours a day but are active only a small percent of the time. This means conventional printers can waste a lot of energy and money. ENERGY STAR-labeled printers automatically power down to 15 to 45 watts, depending on the number of pages per minute produced. This automatic "power-down" feature could cut a printer's electricity use by over 65 percent. Choosing a printer with a duplexing mode can save a company additional money in paper costs. By generating less heat, your printer may also last longer and be more reliable.

ENERGY STAR-labeled multi-function devices offer copying as well as printing, faxing, scanning and/or other capabilities. To conserve energy, they automatically power down to no more than 30-200 watts after a period of inactivity, depending on the speed of the device.

Currently scanners are one of the fastest growing segments of the office equipment market. By using an ENERGY STAR-labeled scanner, you can save about \$20 per year on your electricity bill. In addition, because the scanner will power down during idle periods, your ENERGY STAR-labeled scanner will undergo less wear and tear, and the light source may last significantly longer.

New Participants (cont'd)

Organon Teknika
 Phoenix Home Life Mutual Insurance Company
 Pima County Community College District
 Pontotoc County Schools
 Prince Hotels
 Ridgeview Medical Center
 San Jose Unified School District
 School District of Philadelphia
 Sherman Street Properties
 Spiegel, Inc.
 St. Luke's Regional Medical Center
 St. Paul's College
 Stage Stores, Inc.
 The Brookstone Company
 Toys R Us
 University of California at Irvine
 University of Idaho, Moscow
 University of North Texas
 Worthington City School District

Howard County, Maryland Public Schools Reduce Computer Energy Use

If the term "energy conservation" brings to mind a classroom full of students bundled up in coats, mittens and mufflers, think again. Turning down thermostats is not entirely what Howard County Public Schools (HCPS) in Columbia, Maryland had in mind when it set out to create an effective energy management program. According to Energy Management Specialist Roy Michaelson, the HCPS energy plan had been based on ensuring that heating and air conditioning systems were set to operate at specified times, with no consideration for other variables that can have an impact on usage and cost. HCPS's new Energy Resource Optimization Plan employs a more strategic approach. This plan addresses energy savings in three ways: by changing the attitudes and behaviors of school facilities users, by taking steps to reduce electrical demand charges, and by establishing energy use standards for school facilities.

The first step in the plan is a school-based behavior modification initiative called the School Energy Eye (SEE) Program. The SEE program operates on the premise that users play a major role in controlling energy consumption and that costs can be reduced if users understand the financial impact of their actions and are rewarded for conserving energy. A team is formed at each school to oversee the program and coordinate improvements with school facilities personnel. The payoff is that a portion of the dollars saved – up to 50% of the energy costs avoided are rebated to the schools to use as they wish.

One of the best and easiest ways to curb energy use in schools is by making sure that the growing numbers of computers in schools do not waste energy. Yet according to Michaelson, it's not just the growth in computers that is driving energy consumption upward, but also the way that computers are used. Most desktop computers are used only a small percentage of the time that they are on, and between 30 and 40 percent of computers nationwide are on continuously. HCPS has over 9,000 computers in offices and classrooms, accounting for over \$250,000 each year in energy costs. Michaelson estimates that better control over computer use can save HCPS about \$50,000 per year – enough to fund 2 new teachers, purchase 35 new computers or buy 2,500 new books.

So far 49 of HCPS's 63 schools are participating in the SEE program, and their combined efforts have saved a total of \$210,000 this school year alone. According to Michaelson, "It's not difficult to save energy and dollars. It's just a question of developing an energy eye."

Among the suggestions that HCPS uses to help educate it's staff and students on energy-efficient computer use:

- ☆ Ensure power-management features are enabled on ENERGY STAR-compliant computers and monitors.
- ☆ Turn off your monitor when not in use.
- ☆ Informally group your computer activities and try to do them during one or two parts of the day, leaving the computer off at other times.
- ☆ Educate employees about energy-efficient office management practices.

ENERGY STAR-labeled exit signs are another way that offices can cut their energy and operating costs. As a nation, the United States spends approximately \$1 billion dol-

lars to operate its exit signs. Most conventional exit signs are fitted with high-wattage incandescent bulbs, which use more electricity than newer technologies, and

Ask the Energy Expert

Have a Question?

Get your maintenance, financing, communications, and Partnership questions answered by e-mailing Sol Salinas, *Bulletin* Editor, at salinas.sol@epamail.epa.gov. Answers to technical questions and other technical tips are also available on the Ally Services and Products (ASAP) Directory on the Web at: www.epa.gov/asap.

Bulletin Subscription Information

The Bulletin is distributed on the first Monday of the month to more than 6,000 ENERGY STAR Buildings and Green Lights participants and friends.

To add or remove your name from the fax distribution list, please call the toll-free Hotline at: **1-888-STAR YES**.

To receive *The Bulletin* electronically, please send an e-mail to: "listserver@unixmail.rtpnc.epa.gov" and in the message body type in the following:

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You also can remove your name by typing:

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If you have questions, you may e-mail Sol Salinas, *Bulletin* Editor, at:

salinas.sol@epamail.epa.gov
gov or call the toll-free Hotline.

need to be replaced every few months. One traditional exit sign can cost over \$30 each year to operate, plus the additional maintenance costs to replace burnt-out bulbs. An ENERGY STAR-labeled exit sign operates on less than 5 watts per face, and can save about \$15-25 per year in electricity costs when compared with typical incandescent signs. That may not sound like a lot, but multiply these savings by the number of exit signs every building has in use 24 hours a day, and the energy cost savings and pollution-prevention potential is staggering.

One way to integrate the opportunities that ENERGY STAR-labeled products offer into your ENERGY STAR strategy is to adopt policies in your corporate procurement,

purchasing, and leasing procedures to buy and use only ENERGY STAR-labeled equipment.

To determine how ENERGY STAR-labeled office equipment can help your organization save even more energy, ENERGY STAR offers programs that calculate projected savings for a given set of specifications. Visit the ENERGY STAR-labeled products Web site at www.energystar.com to access these programs or learn more about labeled products in general.